

Web-Based Intelligent Tutoring for the Structure Strategy (ITSS)

Intervention Snapshot | Adolescent Literacy Topic Area

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WHAT WORKS CLEARINGHOUSETM April 2020

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Literacy skills are critical to ensure better academic achievement and set students on a path for higher graduation rates and college enrollment. Web-Based Intelligent Tutoring for the Structure Strategy (ITSS) is a supplemental web-based program for students in grades K-8. It is designed to develop literacy skills needed to understand factual texts encountered in classrooms and everyday life. The program teaches students how to follow the logical structure of factual text and to use text structure to improve understanding and recall. In particular, ITSS highlights five main text structures that are used to (1) make comparisons; (2) present problems and solutions; (3) link causes and effects; (4) present sequences; and (5) describe things, people, creatures, places, or events. The program helps students classify the structure of a passage by identifying certain key words, such as "solution"

and "in contrast," that clue readers in to the type of arguments the text is making.

This What Works Clearinghouse (WWC) report, part of the WWC's Adolescent Literacy topic area, explores the effects of *ITSS* on comprehension. The WWC identified two studies of *ITSS* that meet WWC standards. The evidence presented in this report is from studies of the impacts of *ITSS* on students in grades 4, 5, and 7 and a variety of school settings, including suburban and rural districts.

Findings on *ITSS* from two studies that meet WWC standards are shown below. The table reports effectiveness rating, the improvement index, and the number of studies and students that contributed to the findings. The improvement index is a measure of the intervention's effect on an outcome.

What Happens When Students Participate in ITSS?

		Study findings	Evidence meeting WWC standards (version 4.0)	
The WWC found that implementing ITSS:	Effectiveness rating	Improvement index (percentile points)	Number of studies	Number of students
Is likely to increase students' comprehension	Positive effects	+9	2	6,724

Note: The improvement index can be interpreted as the expected change in percentile rank for an average comparison group student if that student had received the intervention. A positive improvement index does not necessarily mean the estimated effect is statistically significant.

FINDINGS ARE BASED ON:

2 studies with 6,724 students in 2 states covering grades 4, 5, and 7



STUDENT CHARACTERISTICS:

Urbanicity: Rural and suburban school districts

What Does ITSS Cost?

ITSS software is available at no cost; however, developers require that school staff who would like to implement the ITSS program participate in professional development. In particular, teachers are required to attend a 2-day session, while school

administrators are required to attend a 1-day session. The cost of professional development sessions varies from \$2,500 to \$8,000 per session depending on the number of school staff attending the session and the location of the sessions. An additional 4 to 6 days of in-school coaching is also required. No cost information on in-school coaching is available.

LEARN MORE



Read more about the *ITSS* intervention and the studies that are summarized here in the <u>Intervention Report</u>. Please visit http://literacv.io/projects/itss/ for additional information on implementing *ITSS*.